

KEN KATUMOTO*: Notes on fungi from Western Japan (7)

勝 本 謙*: 西日本産菌類論考 (7)

75. *Vestergrenia neolitseae* Hino et Katumoto, sp. nov.

Maculis sparsis vel gregariis, orbicularibus vel polyhedricis, fusco-brunneis, cum margine fusco, distincto, 0.8–2 mm diam.; peritheciis dense gregariis in maculis, submersis, solitariis, apice tumidulis et nitidulis, subglobosis, 150–180 μ diam., 120–140 μ altis; contextu membranaceo, pseudoparenchymatico, brunneo vel flavo-brunneo, superne atro-brunneo, apice non ostiolato sed dehiscento, 15–20 μ crasso; ascis numerosis, clavatis vel cylindro-clavatis, apice tereti rotundatis et paulum crassiparietalibus, longi stipitatis, rarissime subsessilibus, octosporis, aparaphysatis, 65.5–105 \times 20.5–23.5 μ ; ascosporidiis distichis vel saepe polystichoideis, oblongis vel oblongo-fusoideis, continuis, hyalinis, laevibus, guttulatis, 16.5–20.5 \times 5.5–7.5 μ ; pycnidiis perithecio conformibus; pycnosporidiis subglobosis, ovatis vel pyriformibus, continuis, hyalinis, guttulatis, 6–10 μ diam.

Hab. in foliis vivis *Neolitseae sericeae* Koidz. Urbs Miyazaki, Prov. Hyûga (K. Aratake); Ins. Heigun, Urbs Yanai, Prov. Suô

Fig. 1. *Vestergrenia neolitseae*. A. Perithecia. $\times 125$. B. Asci. $\times 400$. C. Ascospores. $\times 1000$. D. Pycnosporides. $\times 600$.

(Mai. 7, 1961. I. Hino et K. Katumoto—Typus in Herb. FAUY).

The perithecia are densely gregarious in the leaf spot. The upper portion of their peridium is dark brown in colour, rather thickened, and appears as a

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clypeus-like structure with the affected epidermal cells of the host plant. The true ostiole is lacking, but the apical portion of the peridium ruptures at maturity. A great number of asci is contained in a perithecium, and the stipes of the asci come to very long ones in general, but the asci which were enclosed at the lowest portion of the perithecial cavity have short stipes and are often subsessile.

The present species somewhat resembles *Vestergrenia micheliae* (Syd.) Müller et Arx which is parasitic on the leaves of *Michelia nilagirica* in India. The former, however, has slightly narrower ascospores, forms the distinct spots on the leaves and obviously parasitic on the Lauraceous plant.

76. *Eudarluka australis* Spegazzini, Rev. Mus. de La Plata, **15**: 22, 1908 —Müller & von Arx, Beitr. Kryptg.-fl. Schw., **11**(2): 313, 1962.

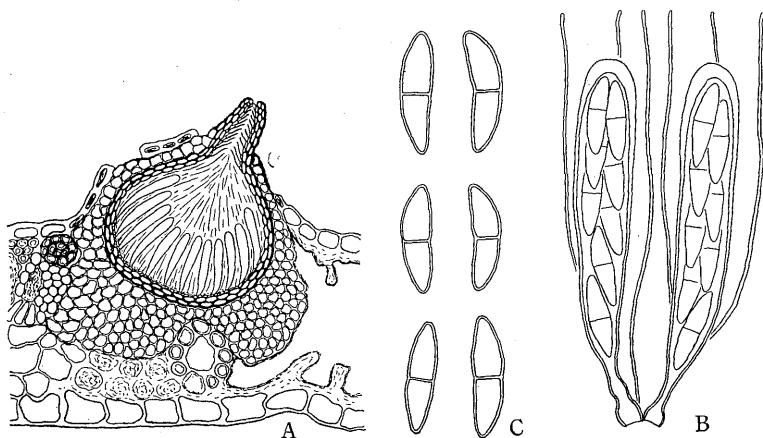
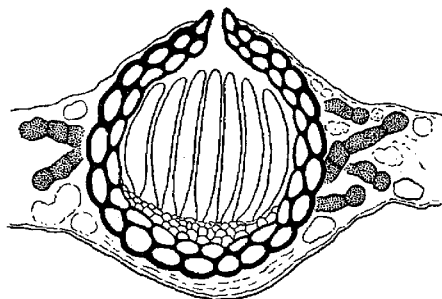


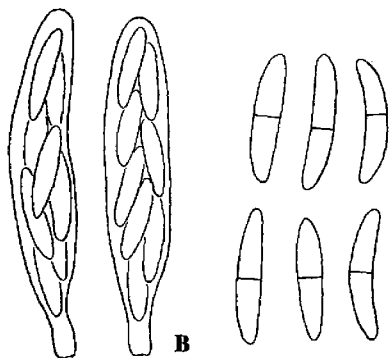
Fig. 2. *Eudarluka australis*. A. Stroma and Perithecium. $\times 125$.
B. Asci. $\times 600$. C. Ascospores. $\times 850$.

The stromata are hypophyllous, sparse or gregarious, solitary, immersed in the mesophyll of the leaves, pseudoparenchymatous, subglobose or irregular in shape, brownish, $200\text{--}350\mu$ in diameter, and composed of the cells which are isometric, subglobose or polyhedral and $6\text{--}10\mu$ in diameter. The perithecia are immersed in the stromata, solitary or rarely caespitose, subglobose, protruded and somewhat papillate at the apical portion and $140\text{--}180\mu$ in diameter. The peridium is coriaceous, blackish brown, pseudoparenchymatous, ostiolate at the apex, composed of the cells which are isometric, polyhedral and $5\text{--}8\mu$ in dia-

meter. The asci are cylindrical, rounded and thickened at the apex, stipitate, containing eight spores, and $65-80 \times 7-10 \mu$. The paraphyses are filiform, simple, hyaline, and $60-90 \times 1-1.5 \mu$. The ascospores are biseriata, fusiform, 1-septate, slightly constricted at the septum, obtuse at both ends, hyaline, guttulate, and $15-19 \times 4-6 \mu$.



A



B

C

Fig. 3. *Mycosphaerella lysimachiicola*. A. Perithecium. $\times 300$. B. Asci. $\times 1,050$. C. Ascospores. $\times 1,200$.

Hab. on the uredosori of *Puccinia caricis-filicinae* Barcel. parasitic on the living leaves of *Carex cruciata* Wahlenb. Onoaida, Isl. Yaku, Prov. Oosumi (Aug. 8, 1955. K. Katumoto).

Distrib. South America (Argentina).

The imperfect stage of this fungus, *Darluka filum* (Biv. ex Fr.) Cast. is widely distributed in the world, and parasitic on the uredosorus of various species of rust fungi.

The writer collected *Carex cruciata*, which was one of the rare species of the genus *Carex* in Japan, on the research journey in Yaku Island, southern Kyûsû. On the leaves of this plant the writer found out the uredosori of *Puccinia caricis-filicinae* which had been only known from India

and Formosa up to that time. The uredosori of the rust fungus were already attacked by *Darluka filum* fungus at the time of collection, and before long severely damaged and destroyed by the parasite. After several weeks' deposition of the material in the laboratory there developed the stromata of a fungus, and successively the perithecia, at the position of the ruined uredosori. As no record has been declared outside of South America on the ascigerous stage of *Darluka filum*, the writer conducted a careful examination of the fungus in

question and found no difference in the morphological characteristics from the original description on *Eudarlucula australis*.

77. *Mycosphaerella lysimachiicola* Hino et Katumoto, sp. nov.

Peritheciis epiphyllis, dense gregariis, saepe magnam partem folii obtegentibus, submersis, globosis vel subglobosis, 80–100 μ diam.; contextu membranaceo, pseudoparenchymatico, atro-brunneo, apice ostiolato, ex cellulis polyhedricis et 7–10 μ diam. composito; ascis basilaribus, cylindraceis vel clavato-cylindraces, apice obtusis vel rotundatis, breviter stipitatis, octosporis, aparaphysatis, 38.5–45.5 \times 8–10 μ ; ascosporidiis distichis, fusoideis vel oblongo-fusoideis, 1-septatis, non constrictis, apice utrinque obtusis, hyalinis, laevibus, 12.5–15 \times 3–3.5 μ .

Hab. in foliis vivis *Lysimachiae japonicae* Thunb. Ins. Misima, Urbs Hagi, Prov. Nagato (Mai. 15, 1962. K. Katumoto-Typus in Herb. FAUY).

The hyphae are creeping into the intercellular portion of the mesophyll of the leaves. The inner tissue of the affected leaves is destroyed, and the leaves change colour in reddish brown. The ostiolate portion of the perithecia appears on the upper surface of the leaves and are so densely gregarious that the leaves seems to be covered by blackish scab. The peridium is made of two layers of the cells which are isometric and 7–10 μ in diameter. The ascigerous cushion develops on the lower portion of the perithecia.

The present species seems to resemble *Mycosphaerella punctiformis* (Pers. ex Fr.) Schröt., but is distinctly different from the latter in respect of the perithecial structure and the form and size of the ascospores.

78. *Leptosphaerulina arachidicola* Yen, Chen et Huang, Journ. Agric. For. (Taiwan), **10**: 167, 1956—Luttrell & Boyle, Pl. Dis. Repr., **44**: 609, 1960—Graham & Luttrell, Phytopath., **51**: 682, 1961.

The spots are foliicolous, large, orbicular to irregular in shape, frequently narrowly flabelliform, restricted at their both sides by the vein of the leaves, brownish or yellowish brown and later grayish in colour, and sometimes produce the concentric ring at the marginal portion. The perithecia are epiphyllous, scattered, solitary, immersed in the mesophyll of the leaves, globose or subglobose, 110–140 μ in diameter, and 95–120 μ in height. The contexture of the perithecia is membranous, pseudoparenchymatous, blackish brown, made of two or three layers of cells which are isometric, polyhedral and 10–14 μ in diameter. The apical portion of the perithecia is somewhat protrudent, forming short neck, and opening by a broad pore. The asci are a few, arisen from the basal por-

tion, filling the whole cavity of the perithecia, obovate or oblongate in shape, with thick wall at the apex, shortly stipitate or sessile, containing eight spores, and $48-65 \times 26-33 \mu$. The ascospores are irregularly clustered in the ascus, elliptic, oblongate or oblongate-fusoid in shape, transversely 3-4-septate, longitudinally non- or 2-septate, slightly constricted at the septa, rounded at both ends, hyaline, guttate, and $19.5-25.5 \times 9-11.5 \mu$.

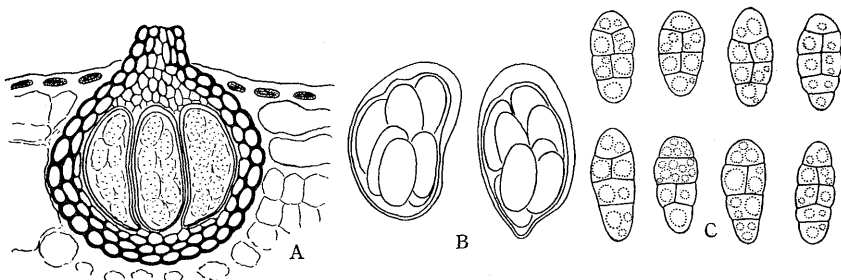


Fig. 4. *Leptosphaerulina arachidicola*. A. Perithecium. $\times 250$.
B. Asci. $\times 400$. C. Ascospores. $\times 600$.

Hab. on the living leaves of *Arachis hypogaea* L. Tyôhu, Simonoseki, Prov. Nagato (Sept. 12, 1962. K. Katumoto).

Distrib. Formosa, North America (U.S.A.).

The present fungus causes a leaf blight of peanut, and was described in the first place from Formosa (Taiwan). The occurrence in Georgia of the United States was later recorded, and in Japan has never been put on record.

The writer's fungus was found to be associated with *Cercospora personata* (Berk. et Curt.) Ell. et Ev. which causes a leaf spot of peanut. It seems that the writer's specimen is rather smaller than the Formosan or North American specimens, and is highly similar to *Pleosphaerulina sojaecola* Miura which is parasitic on the leaves of soy bean, in respect to the spore dimension.

摘 要

75. *Vestergrenia neolitseae* Hino et Katumoto (新種)

シロダモの葉に褐色の小角斑を生じて、のち病斑上に子囊殻および分生子殻を群生する。子座, clypeus あるいは subiculum を有しない種類であるが、時に子囊殻頂部はやや厚く黒褐色を帯び、clypeus に似た状態になることがある。子囊は子囊殻内に多数充満し、底部のものは短柄を有するが、殻腔の上部に伸び出た子囊は非常に長い柄を有するようになる。

76. **Eudarluka australis** Speg. (日本新産)

銹菌類の多くの種類の夏孢子堆に寄生し、全世界に遍く分布している *Darluka filum* 菌の完全時代である。最初南米アルゼンチンで記載されて以来他の地域には未だ記録がない。筆者の一人は屋久島においてハナビスゲ葉上の *Puccinia caricis-filicinae* 菌の夏孢子堆が *Darluka filum* 菌にはなはだしく侵されたものを採集し、研究室に持ち帰って観察を續けたところ、夏孢子堆の崩壊と相まって完全時代の子座および子囊殻が順次形成されるのを知った。子囊殻が完熟するところには、最初見られた多数の夏孢子堆はほとんど跡形もなく、この状態からだけでは本菌が重複寄生菌であることを知るのには困難であろう。

77. **Mycosphaerella lysimachiicola** Hino et Katumoto (新種)

ナガエコナスビの葉が褐色あるいは赤褐色に変じて、葉表に黒色細点を密布する。子囊殻、子囊胞子ともに最も小形の種類に属する。

78. **Leptosphaerulina arachidicola** Yen, Chen et Huang (日本新産)

ラツカセイ葉上に褐色大形の病斑を形成し、病斑上に子囊殻を散生する。子囊胞子は3個の横隔膜および2個の縦隔膜を有するものが最も多い。台湾および北米ジョージア州に分布している。

□唐進、汪發績：中国植物誌 第11巻 莎草科 I 261 pp, 図 120 1961. 科学出版社, 4.85 元。カヤツリグサ科の5つの Tribe, Scirpeae, Rhynchosporae, Cyperae, Hypolytreae, Sclerieae, 27 属 238 種をまとめている。その中で15種以上ある属は, *Scirpus* (37 種), *Eleocharis* (*Heleocharis* 29 種), *Fimbristylis* (47 種), *Cyperus* (36 種), *Scleria* (16 種) である。いづれも解剖図なり全植物の図がのせてあり, 検索, 記載ももれなくえられているので使いやすい。新しい Taxa のラテン記載は, 文末に附録としてついている。変種, Section や Series はタイプを指定していないが, これら命名上の問題は同じ著者が, 植物学報 10 (2): 171-173, 1962 で増訂している。可成り文献の見落としや, 訂正する必要のある学名が目立つが一応中国産のものが分るので有難い。索引, 分類表, 中国名もつけてある。 (許 建昌)

□Matthews, J, R: **Origin and distribution of the British flora** 173pp., 5 tabs., 6 maps. Hutchinson's University Library 1955 年初版。12s 6d. 著者はスコットランドのアバディーン大学の教授。少し古い出版であるが, 主として氷河時代以来の英国フロラの変遷のあとを欧州大陸のそれと関係づけながらまとめた小好著。巻末に要素別の植物のリストおよび参考文献がついている。 (津山 尚)